

**USAID/Malawi PHICS PROJECT:  
MALARIA PROGRAM ASSESSMENT**

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## EXECUTIVE SUMMARY

A two week external review of the malaria component of USAID/Malawi's Promoting Health Interventions in Child Survival (PHICS) project reported the following

### Major Conclusions

1. Under the PHICS project there has been significant progress in characterizing the epidemiology, as well as social and economic factors related to malaria in Malawi. In turn this analytic agenda has resulted in a number of substantive policy changes within GOM. However, the ability of the national malaria program to build on these efforts by delivering strong malaria control has been compromised by the program's efforts being spread over too many "priority" areas, and with too little focus on program implementation.
2. The major challenge facing the MCP is the provision of adequate malaria curative and preventive services. The two most important constraints to delivery of malaria services are limited access by the public to quality services, and, a public poorly informed about available services. This is most strikingly illustrated by the implementation of the national policy on S-P as the first line drug for treatment of uncomplicated malaria. Lack of public access to the drug and widespread public concerns about its safety and effectiveness have seriously undermined the effectiveness of the national S-P policy.
3. The unprecedented political and social changes underway as the people of Malawi undertake their first multi-party elections and corresponding emergence of new openness within the GOM has created new opportunities for the provision of decentralized and cost-reimbursable health services.
4. A redesign of the PHICS project is underway. The "refocused" PHICS project strategy in keeping with the emerging changes within the GOM would reallocate efforts and resources from the national level to building an integrated MOH health system at the community, health center, district/health district area and regional levels.

### Major Recommendations

1. The MCP and the PHICS project need to take steps to shift from past research and policy formulation agendas to a more focused emphasis on the delivery of malaria control measures. The primary emphasis of malaria control should be to facilitate the provision of appropriate technical and managerial assistance to regions, districts and NGOs involved in malaria activities. PHICS project resources should be used to strengthen the MCP's capacity to identify and respond to field

support needs

2. The PHICS malaria research agenda should focus on operational research issues that enhance understanding and resolution of the major impediments to the delivery of appropriate malaria services. As such, research should be driven by the field or program needs. Care must be taken not to lose the unique research capabilities built up over the years through PHICS project support. Efforts should be taken to explore how the technical skills available at the Mangochi Research Center can be broadened to permit the development of a center of technical research excellence to support the overall applied and operations research agenda of the PHICS project.
3. To address public concerns about the safety and effectiveness of S-P there is an immediate need for the development of a social marketing strategy for S-P. It is recommended that the marketing strategy be developed on a pilot basis in select PHICS project supported districts. The malaria control program should focus on IEC, supervision and training. It is recommended technical assistance be provided to the MCP through the PHICS project to ensure adequate capabilities to perform these functions.
4. The national reorientation towards the provision of decentralized health services through the district and health delivery areas underscores an urgent need to re-evaluate and if necessary re-design the roles and responsibilities of the central level staff of the MCP. Also, the PHICS long-term malaria advisor position should be retained with a modified responsibility to include an expanded responsibility to provide an integrated approach to communicable disease control at the central level.
5. To facilitate the development of a well focused and implementable national malaria control plan for 1995-1999 USAID should encourage the MOH to participate in the policy and planning workshop for the implementation of malaria control strategies sponsored by WHO/AFRO through collaboration with USAID and CDC in August of 1994. The malaria program manager and a senior official from the MOH should be encouraged to attend as a team.
6. The technical and professional composition of the National Malaria Control Committee and the Malaria Management Team should reflect the need of the MCP for expert guidance on policy and service delivery that is consistent with the changes mandated by a service delivery focus. The membership of these advisory groups should be drawn from both public and private sectors to ensure diversity of perspectives and a broad "ownership" of the malaria control program.

## 1. TERMS OF REFERENCE

In response to a request from USAID/Malawi a two person team was sent by USAID/Washington to assess the current malaria support being provided under the Promoting Health Interventions in Child Survival (PHICS) project. The malaria team, working in collaboration with representatives from USAID/Malawi and the Government of Malawi's Ministry of Health, conducted the assessment from April 25 to May 6, 1994. The primary objective of the review was to provide guidance as to appropriate future directions for USAID malaria activities in Malawi.

The review was particularly timely in light of two related events. the unprecedented political and social changes underway in the country as the people of Malawi prepared for their first multi-party elections, and corresponding emergence of a new thinking within the MOH on the provision of decentralized health services and cost-recovery; and, the redesign of the PHICS project.

The team was tasked with assessing how PHICS support for malaria activities can best fit into a system that reflects increased responsibility for district and regional bodies to plan, manage, budget, monitor and evaluate health services, including those which address the treatment and prevention of malaria. Implicit in the terms was the need to address how a new malaria direction could be implemented within the newly "refocused" PHICS project.

Within this context, the malaria assessment team was specifically tasked with

- 1 Identifying the major institutional, social and policy constraints towards successful control of malaria in Malawi, including
  - management of malaria related illness,
  - prevention of malaria infection,
  - development and implementation of appropriate malaria policies,
  - monitoring and evaluation of malaria activities
  - design and implementation of a malaria research program
  - project management
  - donor coordination
- 2 Recommending immediate and longer-term actions that address these impediments and that are to be carried out under the "refocused" PHICS project

In Annex A a copy of the detailed malaria assessment team's terms of reference is provided

## 2. BACKGROUND

In the 1980s malaria in Malawi was characterized by a steady rise in the proportion of under 5 hospital deaths and in a dramatic increase in the incidence of severe and complicated cases of malaria. By 1990 malaria accounted for 37% of all pediatric outpatient visits for children under 5 years of age, 29% of all pediatric hospitalizations, and 31% of all under 5 hospital deaths. The resulting household economic impact was significant. Among the rural poor more than 28% of mean annual household income was spent on treatment for malaria. The increasing burden of malaria among the people of Malawi was closely linked to the spread of chloroquine resistant malaria.

### A GOM Malaria Control Program

In response to the malaria problem the Government of Malawi with the support of Centers for Disease Control and USAID undertook an initiative to develop appropriate malaria control policies based on a detailed analysis of the malaria situation. As a direct result of these efforts there have been a number of important changes in national malaria control policies and practices. The most significant of these was the October 1991 decision by the Ministry of Health to replace chloroquine with sulfadoxine-pyrimethamine (S-P) as the recommended drug for treatment of uncomplicated malaria in Malawi. As the first African country to change its official treatment protocol so definitively the lessons learned from the experience of converting information into policy and program actions can benefit other countries in the sub-Saharan African region, where chloroquine resistant malaria is becoming an endemic threat to the health and welfare of millions of individuals.

### B PHICS Project Malaria Program

In September, 1992 the malaria component of the PHICS project was amended. The technical approach taken by the PHICS amendment had four principle components:

- a ensure appropriate case management
- b promote effective methods of prevention
- c. strengthen capacity to provide child health services
- d maintain research and policy development capability

### C "Refocused" PHICS Project Design

In March 1994 a "refocused" PHICS project design was presented to the MOH by USAID/Malawi for its review and approval. This redesign of entire PHICS project, carried out between January and

February 1994, was necessitated by a number of the significant changes that had taken place in Malawi since the PHICS project was initiated, including

- the establishment of a policy of de-centralization, based on districts and Health Delivery Areas,
- the emergence of a policy of cost-recovery, beginning in the central and regional hospitals;
- the holding of multi-party elections in May 1994

The most significant changes proposed in the "refocused" PHICS project was a revised strategy that would reallocate efforts and resources from the national level to building a an integrated MOH health system at the community, health center, district/health district area and regional levels. To achieve this the "refocused" PHICS project will focus on achieving five fundamental objectives

- Increased capacity and numbers of community-based health workers,
- Strengthened capacity of health centers to manage and supervise all front-line health workers,
- Strengthened management ability of districts and / or HDAs, particularly in the areas of planning and management, financial planning, training and supervision, logistics, health information system, operation research, health education and cost-sharing,
- Augmented capacity of regions to support districts in the advocacy of budgets and preparation of work plans, training of trainers, health education, financial accountability, health information system and operations research; and,
- National level activities, including policies, in place to facilitate these objectives

### **3. PHICS MALARIA REVIEW**

#### Methodology

In reviewing the Malaria Control Program, the assessment team worked closely with USAID\Malawi and MOH personnel to identify the obstacles to and emerging opportunities for successful malaria control in Malawi. The team met with and interviewed key individuals working in central government, regional and district health offices, health centers, non-governmental organizations, a local pharmaceutical firm and representatives of donor

organizations working in Malawi. The final agenda for the malaria assessment team is included in Annex B.

A striking aspect of the assessment was the consistency of opinions and identification of the same key issues by almost all persons interviewed. Although the individuals and organizations contacted provide a broad representation of those interested or affected by malaria control in Malawi, it must be noted that the team did not have an opportunity to interview the Chairman or members of the National Malaria Control Committee, representatives of CHAM or CMS.

### Findings and Observations

The major challenge facing the MCP is the provision of adequate malaria curative and preventive services. The two most important constraints to delivery of malaria services are: limited access by the public to quality services, and, a public poorly informed about available services. This is most strikingly illustrated by the implementation of the national policy on S-P as the first line drug for treatment of uncomplicated malaria. Lack of public access to the drug and widespread public concerns about its safety and effectiveness have seriously undermined the effectiveness of the national S-P policy.

#### *A. Access to sulfadoxine-pyrimethamine (S-P)*

The primary issues affecting the availability of S-P in health facilities and to health facility extension workers are related to

- Procurement and distribution practices that result in a lack of a continuous and adequate supply of S-P within the health system,
- The over-utilization of S-P in the health system due to the low specificity of presumptive diagnosis for malaria, and
- Access to and availability of S-P in the community through the private and informal sectors

S-P Procurement In this discussion, health system refers to the network of public, private and CHAM facilities and extension workers including central, regional and district hospitals, health centers and health surveillance assistants (HSAs). Public and CHAM facilities and HSAs obtain their drug supplies from Central Medical Stores (CMS) which purchases bulk quantities of generic S-P for use within Malawi. Although CMS is purchasing generic formulations of S-P (reportedly at a price fractionally higher than available on the world market), the quantity available within the health system does not appear to be in concert with the actual need as determined by current treatment practices and guidelines. Shortages and rationing of S-P and all other pharmaceuticals were frequently mentioned at the regional, district and health center level. The

quantity of S-P purchased by CMS is limited by. inadequate central level budget for drugs, and, the purchasing practices of the CMS. The team was unable to assess the frequency of shortages or the rationing of S-P to health facilities by the CMS, and was therefore led to consider the possible inefficiency of the distribution practices and the adequacy of regional and district drug budgets and planning. All of these factors may affect or exacerbate the chronic monthly shortages reported by regional, district and local health facilities.

Relevant to the issue of the overall supply of S-P and other drugs, MOH staff, Regional and District Health Officers suggested that the proposed plans of the government to initiate cost-recovery or cost-sharing practices may help to improve the adequacy of drugs budget. It was further suggested that revenues from cost-recovery or cost-sharing be maintained within the health system, preferably at the institution in which the revenues are collected. These funds could presumably be used to obtain additional drugs from CMS and to improve the overall quality of the services provided by the institution.

S-P Distribution: In addition to the relative non-transparency of the CMS practices which affect the purchase and distribution of drugs within Malawi, there appears to be a number of systems and logistics issues which may limit the timely and adequate distribution of S-P and other drugs to different levels within the health system. Among the factors mentioned by persons interviewed were, the overall inadequacy and unreliability of transport within the health system, the inadequacy of regional and district level operating budgets and the need for planning and management skills and budget authority at the regional, district and local levels. Decentralized authority and the development of management skills outside of the central ministry are necessary to insure that the resources available are employed to meet the priority need of the community.

S-P Over-utilization Current treatment practices, which rely on presumptive diagnosis of malaria for any fever for which there is no other readily apparent cause, result in the inefficient use of the S-P and require the availability of large quantities of drug. Improvements in the specificity of presumptive diagnosis would certainly lead to economies in the drug supply and a decrease in the frequency of unnecessary treatment. It is unlikely, however, that in the short term presumptive diagnostic practices can be improved sufficiently to alleviate the supply deficit at regional and district levels within the system. It is not presently clear if presumptive diagnosis can be made more specific without unacceptable reductions in sensitivity. In certain settings, it may be possible to improve diagnosis through laboratory microscopy, however this approach would not be applicable in most settings due in part to the lack of equipment and skilled manpower, and more importantly, the inefficiency of laboratory diagnosis given the

volume and frequency of febrile illness and the need to treat malaria during first contact with the patient. Therefore, operational research into the improvement of presumptive diagnosis may be seen to rank highly among the research priorities of the MOH.

Community Access to S-P One of the key factors affecting access to and demand for S-P in the community is cost. Although S-P has been removed from the prescription list and is available over the counter (OTC), the cost is currently prohibitive for many Malawians. The estimated OTC cost for a single course of treatment (3 tablets) in the private and informal sectors is almost 5 kwachas, approximately 10 times higher than the cost of S-P in the public sector. The primary reason for this disparity is that while the public sector, through CMS, purchases a generic formulation of S-P, reportedly only a single proprietary brand is available in the private and informal sectors.

The extremely high cost of S-P in the community has serious implications. Firstly, it enhances non-acceptance of the treatment by the community and increases the demand for inadequate but inexpensive alternatives such as chloroquine. This situation will persist as long as chloroquine remains available at low cost and as long as there is a widespread perception that it is effective in treating malaria (see. *Acceptability of S-P*, below). Although a prescription is now required for chloroquine, OTC formulations are still available in Malawi and demand for chloroquine is apparently on the rise. Pharamnova Pharmaceuticals initially discontinued the manufacture of chloroquine in anticipation of the change in malaria treatment policy. However, they report plans to re-initiate production of chloroquine, albeit at reduced levels, in response to local demand for the drug. Secondly, even if chloroquine is completely removed from the market, the high cost of S-P may result in inadequate self-treatment or underdosing which will accelerate the development of S-P resistant p. falciparum. S-P is currently priced and sold as a packaged adult dose of three tablets. If the cost of this dose is too high, there will be demand-based incentives for shopkeepers to break the packages down and sell individual tablets. Even if this practice is prohibited by policy, that policy will likely be unenforceable and in some circumstances may create an ethical dilemma for the shopkeeper (eg a shopkeeper may feel quite justified in selling a child's dosage of 1 tablet if the alternative is no treatment at all for the child because the mother does not have the 5 kwachas needed to purchase the adult dosage). The possibility of underdosing due to cost considerations cannot be adequately controlled by the shopkeeper alone. If every shopkeeper were perfectly compliant with policy and only sold S-P in three tablet dosages, there would still be a cost-incentive for the purchaser to underdose and 'save some medicine for the next time'.

In order to successfully introduce S-P as the first line malaria

drug and have an impact on mortality and morbidity in the community while maintaining the efficacy of the drug, policy is not enough, social marketing and health education are not enough, cost must be reduced to a level that is affordable

Among the alternatives for reducing the cost of S-P in the community is a market approach which may serve to reduce cost by increasing supply of S-P in the community and competition among drug suppliers/producers for the S-P market. Competition for the S-P market may be enhanced by the effective removal of OTC chloroquine and by improving public perception of S-P safety and efficacy to increase the demand for S-P. In an environment of increasing demand, drug suppliers/producers may be more willing to enter the market. In Malawi where the entire private and informal sector market for S-P is dominated by a single product, even the introduction of a one alternative low-cost generic or brand formulation of S-P could have the effect of dramatically reducing the cost of the drug to the consumer. Pharmanova Pharmaceutical has indicated an intent to enter the OTC market for S-P, and presumably intends to undercut the prevailing price in order to obtain a profitable share of the market. USAID encouragement of GOM economic and trade policies which facilitate local production and market entry provide one alternative for decreasing the cost of S-P.

## *2. Acceptability of Sulfadoxine-Pyrimethamine (S-P)*

Closely linked to the issues surrounding access to S-P are those which affect acceptability. As discussed above, the effective use of S-P in the community is hampered by the availability and low cost of chloroquine, a drug which is familiar to Malawians and reportedly perceived as better than S-P. Although the information obtained through the team assessment is anecdotal, the consistency of the concerns expressed about S-P as a malaria treatment was remarkable. The team concluded that there were three key issues that impede acceptance of S-P as the only appropriate treatment for uncomplicated malaria in Malawi.

- Public concerns about the safety and effectiveness of S-P,
- Health provider concerns about S-P, and
- The overall quality of service delivery at the health facility

Public Concerns about S-P Public concerns and to a lesser extent health provider concerns are related to the perception that S-P has a high rate of side effects. Although research has demonstrated a relatively low incidence of side effects from the use of S-P (primarily skin rashes associated with sensitivity to sulfa drugs), persons contacted during site visits consistently mentioned side-effects and drug failure as common barriers to acceptance of S-P.

It would appear that the side effects and drug failures are actually the persistence of malaria symptoms in the patient taking medication whilst the parasites are being cleared. S-P, unlike chloroquine, does not have an analgesic or antipyretic effect. For patients familiar with chloroquine (who expect S-P to also provide immediate relief from malaria symptoms), continued malaise, headache, nausea and fever are misinterpreted either as drug failure or drug reactions. Additionally, it has been observed that a fever spike, presumably associated with the final clearance of parasites, commonly occurs within 48 hours following treatment with S-P. This fever spike, is not expected by the patient, enhances the perception of side effects or treatment failure.

In order to enhance the perceived effectiveness of S-P by the patient, it is necessary to alleviate the malaria symptoms with an analgesic or analgesic\antipyretic such as aspirin or panadol. The current treatment guidelines recommend providing aspirin or panadol to the patient being treated with S-P for use at the time of initial treatment and over the next several days. It is unclear whether this message is understood and adhered to in the clinical setting. Given drug shortages and rationing of drugs at the district and health center level, it is unlikely that this recommendation is or can reasonably be followed. For persons who purchase S-P in shops or pharmacies for self medication, it is unlikely that they are advised to purchase a supplemental analgesic\antipyretic. Also, considering the already high price of commercially available S-P, the patient may be unwilling or unable to bear the additional cost of aspirin or panadol.

Health Provider Concerns Health care delivery personnel at various levels of the health system expressed satisfaction with the antimalarial action of S-P, reporting a decrease in recidivism among patients treated with the drug, however almost all persons interviewed stated that "S-P just doesn't work for me". It would seem therefore that the reluctance of the community in using S-P may be enhanced by the lack of personal advocacy from health care providers. Apparently, there is enough skepticism about S-P among health providers and policy makers that misinformation about the drug, its effectiveness and its potential side effects is widespread. The assessment team was frequently asked questions or asked to confirm or deny rumors about S-P. The origin of these rumors and misinformation is unknown, however the questions and concerns raised were frequently well elaborated. Most were concerned with rapidly failing efficacy of the drug, a high incidence of severe and moderate side effects and possible drug interactions. An example which illustrates the need for continuing dialogue on the subject of S-P implementation follows:

During one interview, the issue of drug interactions was raised. The concern related to the concomitant use of other sulfa drugs, primarily Bactrim. The treatment guidelines for malaria indicate that if the malaria patient is being treated

with Bactrim, it is not necessary to provide S-P. The guidelines do not stress the inadvisability or potential negative consequences of providing S-P in this circumstance. It was suggested by the person interviewed, that the largest risk may be posed in the reverse scenario in which a patient who has self-medicated with S-P is prescribed Bactrim in the clinic setting. A potentially common example can be given: a febrile child who, after treatment in the home with an antimalarial, is brought to the clinic and treated for an ARI such as pneumonia. It was unclear to the person interviewed whether the guidelines for using Bactrim sufficiently require the assessment of concomitant or recent use of S-P and what risk is associated with the use of both drugs. It was noted that even if the patient is asked about recent use of S-P, the answer may not be reliable. A study recently conducted in Malawi found evidence of both S-P and chloroquine use in the urine of a high percentage of study participants who claimed no recent use of antimalarials.

This example illustrates the level of sophistication in which some of the concerns are presented. Although the MOH disseminated the scientific evidence and the logical arguments about the use of S-P to the health care provider community prior to the formal launch of the drug as the first line treatment for malaria, a continuing dialogue has not developed. The provider community may treat patients with S-P because it is policy, but they will not become advocates of the treatment if their doubts are not aired and if the information on the continuing efficacy and safety of S-P is not disseminated to them.

Although this impression of concerns within the community and among health care providers is based on anecdotal experience, the assessment team concluded that the exact nature and the extent of these concerns must be examined closely and immediately.

Quality of Service Delivery Finally, the very broad issue of service delivery quality acts as a barrier to the acceptance of S-P and the use of public facility-based health services in general. Using S-P and malaria treatment as an example, the need for a closer look at quality of service delivery can be identified. Malaria treatment accounts for 30-50% of patient services provided in most health facilities in Malawi. The quality of service delivery for malaria is limited by the issues related to access and availability as noted above. Notably, quality of service delivery, which remains to be assessed formally, is inhibited by the lack of appropriated decentralized needs-based planning. Given the plans by the GOM to initiate decentralized management of the health services as well as cost-recovery or cost-sharing practices as required by the World Bank PHN Sector Credit, the assessment team engaged persons contacted in the discussion of these topics and their relationship to the delivery and quality of services.

Among the common themes raised were the need for human resource and skills development in the regional, district and local facilities, and the need to define roles and responsibilities of each level of the health system, particularly the new roles to be played by the Central and Regional offices in providing policy guidance, technical and managerial backstopping

Decentralized needs-based management will require strong data skills, planning, financial and supervisory skills at the most peripheral levels of the health system, the district health office and the health center. These skills and the responsibilities they serve are not currently in place. The success or failure of decentralization and cost recovery will in large part be determined by the level of investment made in the human resource capabilities at these levels

Also, not to be overlooked in an effort to get appropriate management skills to the periphery, is the content and quality of technical training for health care providers. Malawi is currently engaged in the expansion of the health delivery workforce through the large scale training of HSAs. There is a goal to train 4500 HSAs in the short term. An examination of the curriculum raises concerns. The curriculum is large and unwieldy and for many topics the technical content is either outdated or blatantly wrong. For Malaria, the training manual is focused almost entirely on vector control and spraying with insecticide. This is completely outside the current GOM policies on Malaria control. The HSA training materials must be examined and revised immediately

Systems and budget issues also limit the quality of services provided. The lack of adequate and reliable communications and transport appear to be significant impediments. Transportation is reportedly a severe and chronic problem. In every facility visited, persons interviewed stated that the lack of sufficient vehicles and bicycles and the frequency with which they are out of service is the most immediate issue. Inadequate transportation, as noted above may inhibit the timely delivery of drugs and supplies within the health system, but it also interferes with timely transport of patients requiring referral, and most chronically (due to its position in the priority list) the supervision of personnel and outreach to the community. This lack of supervision and outreach may have an enormous effect on the quality and consistency of service provision. Communications is a similarly high profile issue with significant implications. In one health center visited, a PHICS sentinel site, the simple replacement of a telephone box in the facility is still unresolved after almost two years. This significantly slows down the referral process for severely ill patients. A patient may be required to wait at the facility until a message and request for transport can be taken to the road, picked up by a vehicle, delivered to the district hospital and a working vehicle can be identified and dispatched to the health center. This time factor, in addition to the chronic shortages of

drugs, the small amount of time spent with each patient and the generally poor state of repair of the facilities further undermines the acceptability of the health center as a service provider and the quality of services provided

#### **4. RECOMMENDATIONS**

The recommendations are organized according to the seven major areas reviewed by the assessment team. Within each of these topics the recommendations are presented according to their priority with the most urgent actions being listed first. Recommendations are further delineated on the basis of being either an immediate (I) or long-term (LT) action.

##### **I. Major Constraints to Adequate Management of Malaria Illness**

###### **A Access to S-P**

Issue: Continuous and adequate levels of S-P within the health system

Recommendation (I) Immediate action must be taken to ensure adequate national budget for S-P procurement in time for the next malaria transmission season

Recommendation (LT) Action must be taken to ensure that the process by which Central Medical Stores procures essential drugs, including S-P, be transparent and based on the clinical needs of the community

Recommendation (LT) To off-set the limited financial resources available through the central budget steps need to be taken within the PHICS project to develop and implement local level pilot studies on possible cost-sharing/cost-recovery schemes for S-P and other essential drugs. These studies should form the basis for future national cost-recovery policies

Recommendation (LT) The factors limiting the timely and adequate distribution of S-P to the Regional, District, and peripheral health centers must be identified and corrected. These may include issues of inadequate transport, inadequate regional and district level operating budgets, inadequate planning and management skills at the local level

Issue Over-prescription of S-P due to the low specificity of presumptive diagnosis

Recommendation (I) Operational research into the improvement of presumptive diagnosis should be among the highest research priorities of CHSU

Issue Access and Availability of S-P within the community

Recommendation (I) Steps need to be taken to increase the market demand for S-P by limiting the availability of other antimalarials, particularly chloroquine Specifically, local pharmaceutical firms and pharmacies be notified that chloroquine may not be sold without a prescription

Recommendation (LT) Immediate steps need to be taken to ensure the provision of affordable S-P through private sector distribution schemes, eg pharmacies Specific steps to be taken under the auspices of the PHICS project are increased competition in the private and formal sector by ensuring the availability of generic and/or alternative proprietary formulations of S-P on the market One option for achieving this is the facilitation of low cost, local formulation of S-P by pharmaceutical companies operating in Malawi

## B *Acceptability of S-P*

Issue Public concerns about S-P safety and effectiveness

Recommendation (I) There is an immediate need for determining the need and if appropriate the development of a social marketing strategy for S-P It is recommended that the marketing strategy be developed on a pilot basis in select PHICS project supported districts It is important that any external technical assistance that is provided should, in addition to assisting the MOH develop a marketing strategy, explicitly target the building of local capacity in social marketing and social research As part of the strategy the market surveillance system and marketing experience of local pharmaceutical concerns should be engaged. The development of the social marketing should include

- an assessment of the need for a marketing effort for S-P
- characterization of the basis for low public acceptance of S-P
- and, if needed, the development and testing of a social marketing strategy for S-P

[Note: If possible any campaign should be launched concurrent with the introduction with the availability of low cost and appropriately packaged S-P discussed in other recommendations ]

Recommendation (I). Steps need to be taken to link to the social marketing campaign to exploring packaging options which include the provision of analgesic and anti-pyretic drugs with S-P, and differential packaging for children and adults

Issue Health provider concerns about S-P

Recommendation (I) Immediate dissemination to the health care community information on the efficacy of S-P and chloroquine as part of consensus building

Recommendation (I) The treatment guidelines for malaria must be modified to ensure clearer guidance on the appropriate role and use of S-P and chloroquine One option would be to delete the guidance on use of chloroquine as an alternative to S-P.

Issue Quality of malaria services provided at the health facility

Recommendation (LT) As part of the overall "refocused" PHICS project steps need to be taken to improve and strengthen human resource capabilities, particularly in the areas of planning and financial management of District and local health facilities Accordingly.

- Supervisory skills need to be in place at all levels of the health system to ensure the quality diagnosis and treatment of malaria
- The roles and responsibilities of each level of the health system need to be developed to ensure sustainable, effective, decentralized delivery In particular, the role of the Central and Regional Offices in providing policy guidance, technical and management backstopping and supervision
- HSA training materials must be examined and revised immediately

Recommendation (LT) In the PHICS target Districts the communications and transport systems need to be assessed and steps taken to ensure they are adequate to meet the demands of referral and supply

[Note the sentinel health clinic at Khombedza in Salima has been without a functioning telephone for over a year and a half despite repeated requests for action from the local staff This clinic is the principle referral facility for a population of over 200,000 Immediate action is needed to repair the phone system ]

Issue Training of HSAs

Recommendation (I) The HSA training materials must be examined and revised immediately The curriculum is large and unwieldy and for many topics the technical content is either outdated or blatantly wrong. For Malaria, the training manual is focused almost entirely on vector control and spraying with insecticide This is completely outside the current GOM policies on Malaria control

## **2. Major Constraints to Malaria Prevention**

Issue Availability of effective, affordable and acceptable interventions

Recommendation (I) Support should be provided for Project Hope's proposed distribution of mosquito nets on the private sector tea estates in Thyolo. The cost of mosquito nets in Malawi is presently too great for most Malawians to afford. As proposed by Project Hope these high costs would be offset by the tea estate management. Given that up to 20% of Malawians have access to health services through the estate systems this activity offers a potential model for how the private estate sector can be engaged in the provision of affordable mosquito nets.

Recommendation (LT) Limited operations research should be carried on testing the appropriateness of mosquito nets as a possible prevention for malaria transmission. These efforts should include small grants to NGOs with technical backstopping by MCP and central USAID projects. It is recommended that all such proposals submitted by NGOs be reviewed for their technical merit by an appropriate central USAID project. Further, the PHICS project should support a study tour of NGOs and GOM of the Tanzania Bed Net trial site.

## **3. Development and Implementation of Malaria Policies**

Issue Translation of malaria policies into program actions

Recommendation (LT) The PHICS project needs to reallocate resources within the malaria budget from new research initiatives to implementation actions for established policies. The most urgent example would be the need to strengthen the implementation of the S-P policy.

## **4. Monitoring and Evaluation of Malaria Activities**

Issue Adequate monitoring and evaluation

Recommendation (LT) Strengthen the ability at the local and district level to use monitoring and evaluation data for routine decision making, eg how to maintain adequate stock of drugs over the course of a month.

Recommendation (LT) Maintain and strengthen sentinel surveillance for adverse drug reactions to S-P. The routine monitoring and evaluation and sentinel surveillance systems should be augmented by routine operational research into the efficacy of S-P.

## **5. Design and Implementation of Malaria Research Program**

Issue    The role of research

Recommendation (I)    There is an immediate need to redefine the role of research within the PHICS project agenda. The PHICS malaria research agenda should focus on operational research issues that enhance our understanding and resolution of the major impediments to the delivery of appropriate malaria services. As such, research should be driven by the field or program needs.

Recommendation (I)    The PHICS project malaria coordinator should work with the MOH to establish a research agenda that improves service delivery and ensures the early recognition of changes in the efficacy of current policy, eg. doing periodic efficacy studies of S-P.

Recommendation (I)    That the research study on the efficacy of insecticide impregnated mosquito nets proposed by HHRAA project and to be implemented by CDC not go forward. This decision is necessitated by the disproportionate demands on management and other resources required for implementation of the study.

Issue    Broadening the role and capability of Mangochi Research Center

Recommendation (LT)    Efforts should be taken to explore how the technical skills available at the Mangochi Research Center can be broadened to permit the development of a center of technical research excellence to support the overall applied and operations research agenda of the PHICS project. Towards this end USAID should follow-up on expressions of interest made to the assessment team by the local JICA representative for the provision of technical equipment and supplies to the Mangochi Labs should there be a decision by the PHICS project to expand the laboratories mandate.

Issue    Setting a Mangochi Research Agenda

Recommendation (LT)    Broadening the role of Mangochi Research Center raises a number of issues about how and who sets the Center's research agenda, and the appropriate emphasis to be given to malaria research. Through the PHICS project technical assistance needs to be provided to assist GOM to set an appropriate research agenda for Mangochi.

**6. Refocusing and Strengthening the Malaria Program**

Issue    Malaria control program is spread too thin

Recommendation (I)    The MCP needs to focus its efforts to provide support and guidance in the delivery of appropriate malaria control measures. Its primary role should be to facilitate the provision of appropriate technical and managerial assistance to

regions, districts and NGOs involved in malaria activities. This requires that the MCP have the necessary skills to identify and respond to field support needs.

Issue National Malaria Control Plan

Recommendation (I) To facilitate the development of a well focused and implementable national malaria control plan for 1995-1999 USAID should encourage the MOH to participate in the policy and planning workshop for the implementation of malaria control strategies sponsored by WHO/AFRO through collaboration with USAID and CDC in August of 1994. The malaria program manager and a senior official from the MOH should be encouraged to attend as a team.

Recommendation (I) The MCP needs to take leadership responsibility for the technical coordination of the S-P social marketing activity.

Issue: Appropriate guidance from national malaria advisory groups

Recommendation (I) The technical and professional composition of the National Malaria Control Committee and the Malaria Management Team should reflect the need of the MCP for expert guidance on policy and service delivery that is consistent with the changes mandated by a service delivery focus. We strongly recommend that the membership of these advisory groups should be drawn from both public and private sectors to ensure diversity of perspectives and a broad "ownership" of the malaria control program.

Issue Inadequate coordination of policy and program implementation disease programs within the MOH

Recommendation (I) USAID should encourage the MOH to establish a mechanism for coordinated issues management, including the setting of national policies and program implementation among the eight major disease programs within the MOH.

Recommendation (I) The PHICS project supported long-term resident malaria advisors. Scope of work should be modified to include responsibility for facilitating this coordination of policy and program implementation.

Issue Decentralization and the changing role of MCP

Recommendation (I) The roles and responsibilities of the MCP need to be re-defined within the context of decentralization. With management and financial responsibilities to the regions and districts the MCP will be responsible for maintaining and disseminating the national malaria control policy, providing

technical and managerial assistance to regions and districts and maintaining an operations research agenda to ensure effective and consistent malaria control activities

Issue Appropriate technical and managerial skills within MCP

Recommendation (LT) In-country and/or out-of-country training opportunities need to be provided to appropriate MCP staff to ensure a resident capacity to execute the technical and managerial responsibilities of the MCP. This training is particularly critical to ensure resident ability to plan, manage and implement the national malaria control program in the context of decentralized, integrated case management

Issue Appropriate budget attributions to address access and acceptability issues

Recommendation (I) The PHICS malaria budget needs to be apportioned in accordance with the priority needs of programmatic delivery of malaria services. In particular, there is need to reconsider the current emphasis of research support within the PHICS malaria budget in light of the urgent need for the social marketing of S-P and the longer-term needs for malaria specific supervision and human resource development

Issue Augmenting the resources of the PHICS project malaria program

Recommendation (I) For operational research issues of regional importance USAID/Malawi should explore the possibility of central funding and/or technical assistance through the HHRAA project

Recommendation (I) For the provision of malaria services through NGOs USAID/Malawi should explore options for coordinating with the central PVO Child Survival grants program

Issue Responsibility of the Long-term resident malaria advisor

Recommendation (I) The PHICS supported malaria advisor position should be retained with a modified responsibility to include an expanded responsibility to provide an integrated approach to communicable disease control at the central level. The immediate responsibility to be to ensure the coordinated delivery of technical assistance the S-P social marketing activities

## 7. Donor Coordination

Issue National Malaria Control Plan

Recommendation (I) USAID/Malawi should take the lead in coordinating a donor review of the next 5-year National Malaria

Control plan to ensure its consistency with the larger issues of decentralization and cost-recovery

Issue Implementation of Decentralization and Cost-Recovery

Recommendation (LT) USAID should promote donor support for a rational strategy for identifying and testing models for decentralization and cost-recovery prior to the implementation of a national plan. Specifically, PHICS project priority districts should provide opportunities to test different models.

Issue Field Coordination among Donors

Recommendation (LT) USAID should identify focus districts in which other donors are working and coordinate information sharing and project activities to minimize management burden on district health offices, ensure consistency in technical approaches and to maximize impact